

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Amendment of the Commission's Rules with	)	GN Docket No. 12-354
Regard to Commercial Operations in the	)	
3550-3650 MHz Band	)	

To: The Commission

**COMMENTS OF WESTERN WIMAX LLC**

Western WiMAX LLC ("Western"), pursuant to Sections 1.415 and 1.419 of the Commission's Rules, hereby comments in response to supplemental proposals for the 3650-3700 MHz band described in the April 23, 2014 Further Notice of Proposed Rulemaking ("*FNPRM*") in the above-captioned proceeding.<sup>1</sup> As a pioneer in the deployment of commercial fixed wireless broadband facilities in the 3650-3700 MHz band, Western and its customers would be deeply affected by any rule changes that would impose operational restrictions during and after a transitional period. Although it supports the ultimate integration of the 3650-3700 MHz band into the Spectrum Access System ("SAS") and the regulatory structure for the Citizens Broadband Radio Service, Western respectfully urges the Commission to adopt procedures that will enable Grandfathered Wireless Broadband Providers to maintain and transition existing operations without being forced to incur additional costs.

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<sup>1</sup> *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354, FCC 14-49 (rel. Apr. 23, 2014) ("*FNPRM*").

## **Background**

Western was the second company to obtain a non-exclusive 3650-3700 MHz Service license, and the first to commercially deploy when it initiated fixed wireless broadband service in the metropolitan Phoenix, Arizona area in January 2009.<sup>2</sup> Western's system is composed of six 3650-3700 MHz locations linked in a ring by licensed microwave backhaul, with redundant paths to limit the impact of system outages. Western has focused on serving small-to-medium sized businesses with carrier-grade service. As the oldest continuous commercial operator, Western currently serves approximately 1,000 customers. Western estimates that it has expended \$1.5 million in engineering, constructing and operating its system.

Western has experienced both the benefits and limitations of the "light licensing" process described in Part 90, Subpart Z. While Western has successfully registered locations to meet its customers' needs, it has faced no less than six major interference cases from other users, some of which did not register their locations in the Universal Licensing System ("ULS") or failed to understand their legal obligations concerning registration, system design and cooperation. After identifying a source of interference – not always an easy proposition – these cases were resolved by the local user group composed of other commercial 3650-3700 MHz operators in the Phoenix area, without Commission intervention. The costs associated with tracking down harmful interference events over the 180 square miles of metropolitan Phoenix were substantial, and Western also had to refund customer payment to compensate for the loss in service.

Going forward, Western has serious concerns about the viability of its service under existing rules and market conditions. As use of the 3650-3700 MHz band proliferates in the Phoenix area, interference will be an ongoing problem under the "light licensing" regime.

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<sup>2</sup> Call Sign WQHV407, originally licensed on November 16, 2007 to Black Mountain Broadband, LLC. Black Mountain Broadband, LLC subsequently changed its name to Western WiMAX LLC.

Western also sees the opportunity to incorporate an additional 100 megahertz of spectrum into its operations. By the same token, Western recognizes that any change to existing rules must not impair its ability to continue to provide carrier-grade service to its customers. Accordingly, any rules and transition procedures the Commission adopts for Grandfathered Wireless Broadband Providers must strike the appropriate balance.

### **Discussion**

Western recommends a number of specific actions the Commission can and should take to better recognize the “significant investment”<sup>3</sup> and ongoing service that Grandfathered Wireless Broadband Providers deliver, while at the same time ensuring that existing services can obtain the benefits inherent in the SAS under new Part 96.

*First*, Western supports the Commission’s plan to designate each Grandfathered Wireless Broadband Provider as an Incumbent Access user in their service contours during the transition period.<sup>4</sup> This would provide an appropriate level of interference protection for those licensees that have, like Western, expended considerable sums to provide commercial service.

*Second*, Western urges the Commission to allow Grandfathered Wireless Broadband Providers to continue using existing equipment indefinitely. Much of the equipment that Western has installed is designed to last many more years, and Western should not be forced to strand that equipment and replace it with equipment that can communicate with the SAS, at likely greater initial expense. However, so that Grandfathered Wireless Broadband Providers obtain the advantages that the SAS will have over the ULS, Western supports a requirement that they must provide the Commission and the SAS administrator(s) with the channels and service

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<sup>3</sup> See *FNPRM* at ¶ 165.

<sup>4</sup> See *id.* at ¶ 166.

contours of their existing service.<sup>5</sup> Until new Part 96 interoperable equipment is commercially available for a reasonable period of time, Grandfathered Wireless Broadband Providers could register new base stations in the SAS as well. In this manner, legacy equipment and existing operations can be incorporated into and protected by the SAS even though the channels cannot be dynamically reassigned. Western believes that this process would preserve the rights of Grandfathered Wireless Broadband Providers while clearing a path for inclusion of the 3650-3700 MHz Service into the new Part 96 rules.

*Third*, upon registration of channels and service contours in the SAS, the Commission should sunset the end-user registration requirements of Section 90.1317. By using census tracts as the baseline geographic unit and adopting service strength limitations at census tract borders, the SAS can perform the interference protection and coordination functions that registration in ULS is currently supposed to perform. Grandfathered Wireless Broadband Providers would have the ability to serve any locations within the service contours they report to the Commission and the SAS administrator(s) without the time, cost or need to register each individual location.

*Fourth, prior to the date on which the Commission accepts applications for Priority Access licenses (“PALs”) in the 3650-3700 MHz band*, all Grandfathered Wireless Broadband Providers that have reported their channels and service contours to the Commission and the SAS administrator(s) should have a first right to apply for PALs for the channels and service contours they previously reported. By this filing right, Grandfathered Wireless Broadband Providers would be able to obtain PALs and secure the interference protection rights that correspond to their areas of operations and that were subject to Incumbent Access protection prior to such time. Western and other Grandfathered Wireless Broadband Providers would have the opportunity to

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<sup>5</sup> See *id.* at ¶ 168.



protect their investments without having to face competing applications or accepting General Authorized Access status, which would be a poor substitute for their existing operations.

*Fifth*, Western agrees that the Commission should not grant any new non-exclusive 3650-3700 MHz licenses once the new Part 96 rules are effective. However, this freeze should not prevent Grandfathered Wireless Broadband Providers from having the ability to register new base stations in the SAS as described above.

*Sixth*, the Commission should eliminate the rules regarding limiting use of contention-based protocols in the 3675-3700 MHz band.<sup>6</sup> The existing rules have artificially limited fixed deployments in the band to the lower 25 megahertz, hampering equipment development and availability and creating an environment where congestion is more likely to occur. Further, requiring contention makes VoIP problematic, so if the intent is to stimulate voice, video and data adoption, contention is diametrically opposed to that concept because voice and video will not tolerate contention.

Western believes that these rules and processes account for the “significant investment” of Grandfathered Wireless Broadband Providers while establishing a path for migration of existing 3650-3700 MHz use to the benefits intended by the SAS and new Part 96. Western urges the Commission to adopt the recommendations described above.

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<sup>6</sup> See Section 90.1319(c).

## **Conclusion**

Western WiMAX LLC respectfully requests adoption of its proposals. In so doing, the Commission would create an environment where Grandfathered Wireless Broadband Providers can maintain commercial operations, have their operations incorporated into the SAS and, ultimately, obtain the full benefits of the new Part 96 rules as legacy equipment is replaced with new SAS-compliant equipment. The Commission also should eliminate end-user registration and contention-based protocol requirements.

Respectfully submitted,

**WESTERN WiMAX LLC**

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